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Dear Cooperator:

Districts Check Achievements; Figures Tell Impressive Story

At the close of the last fiscal year, June 30, the first six soil conservation districts in South Dakota took stock of their accomplishments. This "inventory" took into considera-

tion only the established conservation practices, not including any conservation measures that have been merely planned and not yet completed. The total was found to be rather impressive.

The figures tell their own story, so here they are:

Cooperative agreements	642
Soil surveys	816,483 acres
Range surveys	605,967 acres
Area under agreements	272,728 acres
Strip croppings	36,550 acres
Approved rotations	65,752 acres
Residue management	52,214 acres
Tillage practices	54,692 acres
Contour tillage (not stripped)	3,456 acres
Contour furrows	1,101 acres
Seeding (grass and legumes)	11,215 acres
Controlled grazing	182,214 acres
Terracing	60 acres
Water spreading	158 acres
Stock ponds	97 acres
Woodland plantings	2,299 acres
Wild life plantings	79 acres
Fence construction	85,274 rods
Soil removal from drifted fences	30,854 rods

Avoid Wind Erosion by These Ten
Simple Tillage Rules -- Collins

"People of South Dakota are becoming more tillage conscious, and rightly so," Wilkie Collins, Jr., assistant Regional Agronomist, stated recently. "Tillage is important in an erosion control program as it determines the condition of the soil, the amount of vegetative cover, the percentage of time during the rotations that a cover will remain on the soil. It aids in controlling physical conditions, tilth structure, and the amount of organic matter."

Following are some of the principals which Mr. Collins said should be observed for wind erosion areas:

1. Till the soil to leave the vegetative residue on the surface.
2. Replace fall tillage with spring tillage in order to leave the stubble over the winter.
3. Limit tillage operations to a very minimum. We must remember that any tillage performed means loss of crop residue.
4. Operate soil-throwing implements at slow speed; operate blade or slicing machines at top speed.
5. Decrease the amount of summer fallow and replace with corn or sorghum.
6. Use single disc-drill in seeding land with heavy vegetative cover.
7. Except as necessary for weed control, replace the moldboard plow with the moldboardless plow, duckfoot or modified one-way cultivator, or any other implement that will do the same job.
8. When the vegetative cover is destroyed due to grasshoppers, soil blowing, or any other unavoidable circumstance, use the lister, chisel, or eccentric one-way cultivator with ridging sweeps to roughen or clod the soil, as a temporary tillage operation.
9. Till for conservation of moisture by working sloping land on the

contour, by exercising caution in the timeliness of tillage and the use of pocket machines.

10. The tillage program must be flexible to fit unforeseen conditions, such as grasshopper and noxious weed infestations, change in crop rotation, specialized seedbed preparation, cutworms, and loss of vegetative cover.

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Two townships have asked to be added to the Clearfield-Keyapaha District. A hearing has been scheduled for the last week in August to determine whether or not these Tripp County townships should be annexed to the existing district. If the hearing is favorable, a referendum will be unnecessary due to the fact that this territory will be added by the petition procedure.

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Grass Seed Harvest Shows Trend
Of Restoring Root-Fiber to Soil

That interest in rebuilding the grass root fiber in the soil by grass rotation and retirement of highly erodible land to grass is shown by the fact that many thousand pounds of perennial grass seed has already been harvested on the Brown-Marshall Soil Conservation District. Grasses harvested so far are Canadian bluegrass and brome grass. Seed has been secured by grass seed strippers, grain binders, and combines.

Cooperators with the Brown-Marshall District Supervisors who have rented the grass seed stripper and harvested grass seed for use on their farms are Loran Phillips, George Crawford, Merl Grupe, Merl Moeckly, Lee Herseth, Ernest Fisher, William Wright, Ed Miller, and Alvin Ackerson.

Frank Feser swathed his field of brome grass to dry out for combining;

Guy Stokes combined at the time of cutting and many others used the old standard method of binding and shocking and will thresh later.

So far the Soil Conservation Service office has had no reports of co-operators who have mowed seed bearing grasses when mature and spread this seed bearing hay; however, several have signified their intention of using this method. The Kansas Experiment Station has found this to be a very satisfactory method of establishing native grasses. Rex Bankert on his recent trip through Missouri, Kansas, and Nebraska had the opportunity to see these tests and reports fine stands of grass so obtained.

On blow sand areas to be retired to grass, Supervisors of the Brown-Marshall District are encouraging co-operators to try this cheap and easy method. A weighted disk run fairly straight is pulled over the seed bearing hay to anchor the material, prevent soil movement, cover the seed, and protect the seedling grasses.

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The Sioux-Brule Soil Conservation District in Union County was voted upon favorably and became the ninth district to be organized in the state. Supervisors were elected in June and they met to prepare their program and plan in July. This district comprises part of the territory that had previously been under the Alcester CCC camp area.

Mr. J. C. Dawson is Chairman of the Board of Supervisors. Other members are W. M. Lyle, Eric Erickson, Earl L. Peterson, and Lee Stoutenberg. All of these men except one are members of the local community planning committees. L. V. Ausman, County Extension Agent, is Secretary for the group.

The Soil Conservation Service is cooperating with this district and has

established headquarters at Alcester for this and the Clay County District. Elvin C. Bjorklund, Camp Superintendent at Alcester, has been named District Conservationist.

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George Beaman Gets Good Crops With Flood-Irrigating Methods

As a result of two water facilities developments on the George Beaman ranch, near Conata, Pennington County, South Dakota, Mr. Beaman is the only rancher in his community who has hay to put up, he reports. The Beaman place had been designated as a water facilities demonstration ranch.

One demonstration was the diversion of water from a stock water dam the latter part of last March, which flood irrigated 40 acres of land. This one irrigation resulted later on in a harvest of 20 tons of good wheat grass hay and 20 tons of oat hay.

The second demonstration was pump irrigation from the White River. Mr. Beaman's irrigation system was completed April 15, and he irrigated 22 acres of oats and 25 acres of alfalfa of this year's seeding. There had not been enough moisture before seeding to start the crop. After the first crop was harvested, the land was given a second irrigation. Between irrigations, Mr. Beaman harvested 40 tons of oat hay from the 22-acre field. He also has obtained a good stand of alfalfa on this field, as well as on the 35 acres which had been seeded without a nurse crop.

The cost of these developments has been very reasonable. Construction of the water spreading structures, in the first demonstration, necessitated a cash outlay of only \$75. This is exclusive of Mr. Beaman's labor and the cost of the stock water dam.

Setting up the pump irrigation system entailed a cash outlay of \$450, but Mr. Beaman plans to invest another \$500 for a more efficient power unit. The cost, exclusive of Mr. Beaman's work, of flooding the oat-hay and alfalfa fields twice amounted to only \$50.

In the construction of these two demonstration units, Mr. Beaman obtained engineering and other technical assistance under the Water Facilities Program, which is administered by the Soil Conservation Service and Farm Security Administration in cooperation with the local Extension Service office.

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Tours of most of the soil conservation areas in the state were conducted during June and July. The general procedure was to start at ten o'clock and stop at noon for a picnic lunch or eat at a CCC camp. The tours were then terminated by four o'clock. Four or five farms were included in the itinerary of each tour and the farmers were given an opportunity to interview the cooperating operator. Additional tours may be scheduled at any time by writing to the Extension Soil Conservationist at Brookings and requesting a date.

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The erosion control program of Chris Anderson of Fairview, S. Dak., a cooperator within the SCS-CCC camp located at Alcester, includes terraces, contour farming, use of a damming lister, tree planting, gully control, and grass seeding. In a recent interview Mr. Anderson stated that he was well satisfied with all the practices and that his only regret was that he had not started the soil conservation program 18 years ago when he first started operating his farm.

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The tenth soil conservation district organized in South Dakota was the Pennington County area created the last of June with a ninety percent favorable vote. Supervisors were elected the last week in July and they are now developing their program and plan of work.

The Chairman of this Board is Jens Keilstrup, Vice-Chairman--Seth Hulbert, and Treasurer--George Egger. Other members of the Board of Supervisors are William A. Hilmer and V. A. Anderson. The Secretary is Percy Heinzen, County Extension Agent for Pennington County.

At their organization meeting, the Supervisors petitioned the Soil Conservation Service to assign personnel to the district pending the final development of the detailed plan of work. Herbert Simonson, who has been working with the Water Facilities Program, has been assigned by the Soil Conservation Service to assist the supervisors with their preliminary activities.

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Hearings have been held in Meade, Lawrence, and Butte Counties on two additional districts. The area in Meade County comprises about 195,000 acres of farm, range, and timber land and will be known as the Elk Creek Soil Conservation District.

The acreage involved in the proposed Lawrence-Butte District is 253,440 acres of which 155,520 acres are in northern Lawrence County and 97,920 acres are in the southern part of Butte County.

The State Committee has determined there is a need for a district in each of these areas. Plans are at the present time that the referendums in these districts will be held sometime during the month of September.

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Soil conservation exhibits were displayed by the four CCC camps at Flandreau, Alexandria, Sturgis, Spearfish, Selby, Lake Andes, and Ipswich prior to August 1. A complete schedule of exhibit dates has been arranged for August and September, which will include most of the county fairs, the state fair, Corn Palace, and many other events. These exhibits show in picturesque and colorful arrangement the erosion control practices being demonstrated in the different camp areas. Plan to see one at the fair you attend!

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Strong Winds Reveal Need of
Care in Cultivation Methods

A high velocity wind of recent date severely tested soil conservation practices in the Brown-Marshall Soil Conservation District. Strip cropping alone, on the sandier soils, proved inadequate in many instances. The failure of strip cropping to entirely prevent topsoil movement and crop destruction was due to a number of reasons, chief among these being the lack of a complete understanding of the principles involved in wind erosion control and also too much optimism which leads many to believe that "The wind isn't going to blow this year."

The combination of practices which gave maximum protection and prevented topsoil movement was tree windbreaks, strip cropping, and trashy or sub-surface tillage. Trashy tillage means to maintain a cover of vegetative or crop residues on and in the surface soils. The use of sub-surface tillage implements will do much to control weeds, conserve moisture and prepare a seedbed and may replace, to some extent, the work now done by the plow, disk, and harrow without exposing the topsoil to blasting.

The use of a sub-surface tillage implement at the proper time after

small grain harvest is said to conserve moisture and eliminate the necessity of Russian thistle burning by checking the development of these troublesome weeds. Crop stubble is left in much the same position as before tillage, giving protection to the soil through the fall, winter and spring.

An additional safety factor which agronomists expect will add much to the stability of the topsoil is the grass-legume rotation. This practice is expected to add binding, fibrous grass roots to the soil to assist in anchoring the soil particles on those spots that are exposed to wind erosion.

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A hearing on the creation of the Carpenter Soil Conservation District was held on August 14. The territory involved includes two townships in Beadle, three in Clark, and four in Spink County. If the State Committee determines there is a need for this district the organization and educational activities will be conducted by the temporary committee and the three county agents. If organized this will be the thirteenth district in the state.

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Radio transcripts have been made on a number of farms for the purpose of broadcasting over the many radio stations in the state. These recordings were made with a portable transcription outfit which enabled the recording to be made on the cooperator's farm. Copies of the original transcription have been made to send to the radio stations. These broadcasts were in the form of a fifteen-minute interview with a farmer who was following a complete conservation program and included his opinion of the work done.

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Twenty townships in the eastern portion of Custer County have petitioned the State Committee for a hearing on the creation of the Custer Soil Conservation District. The territory included is all the land area east of the state park in Custer County. The hearing has been scheduled for August 27. About fifty thousand acres of land purchased by the Land Utilization Division of the Soil Conservation Service is included in the boundaries of this proposed district area.

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Zoo at Huron CCC Camp Attracts Much
Attention; Largest City Zoo in State

Visitors at the South Dakota State Fair this year will be able to see the largest zoo in the state. This zoo is on the fair grounds and has been developed by the SCS-CCC Camp, the City of Huron, and other state and local agencies.

Members of Co. 4725 started out to raise pheasants and other game birds two years ago. They now boast the largest city zoo in the state.

It all began with a suggestion by a member of the camp educational committee that the pens in the state fair grounds, in which the camp is located, be used to raise pheasants and other game birds native to this part of the country.

The state fair board gave the projects its blessing by purchasing three pairs of game pheasants and donating them to the camp. Members of the company trapped about 50 native pheasants to make the start a good one.

But no sooner had townspeople learned of the plan than the camp telephone began to ring. One man called to say he had a coyote the camp was welcome to. Another said he had uncovered

a den of foxes and would like for the camp to take care of them, and still another had two baby coons only a few hours old. Nursing bottles were purchased and the zoo keepers learned how hard it is to get a cub coon to put up with a milk diet.

From various sources in the past two years the zoo has acquired two baby buffalo, two Virginia deer, four does, three bears, four monkeys, numerous rabbits, prairie dogs, pigeons, coyotes, ground owls, Canadian geese, blue geese, snow geese, eagles, and many other small animals such as ground squirrels, etc.

The Chamber of Commerce and other civic organizations have publicized the zoo far and wide. On an average, more than 500 persons visit the zoo daily. Carl Hansen, secretary of the state fair board has been a driving factor behind the organization of the zoo. He says it makes the people in and around Huron conscious of the state fair all year 'round instead of just one week out of fifty-two.

The Soil Conservation Service personnel has made the Zoo its pet and work hard to make it a success. All in all the zoo is a great source of amusement to all members of the company and each evening, after the day's work, many of the men can be found mingling with visitors.

Joseph M. McGough is the company commander and John W. Sponsler the camp superintendent.

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Land area in the ten soil conservation districts now in operation in this state totals 2,143,137 acres. Of this amount 491,693 acres is additional territory added to original boundaries.

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Two-Hundred-and-Sixty Thousand Trees Planted This Season

Two-hundred-and-sixty thousand trees and shrubs were planted this year in Clay, Union, and Lincoln Counties by the Alcester SCS-CCC Camp. These trees were planted on eighty-two separate farms.

Nearly a hundred acres of land were planted to farmstead and field windbreaks. These windbreaks will protect the farm buildings and an area of crop land from the damaging force of the wind. Livestock, also, will benefit by this protection from the wind, while the individual farmers will provide for a future supply of fuel wood, posts, and wood products. Windbreaks were planted with a shrub row, such as honeysuckle, lilac, or caragana, completely encircling the planting. The next row toward the center was either an evergreen species, Russian olive, or mulberry. Ash, Chinese elm, or walnut were planted toward the center, with American elm or cottonwood taking the middle row of the planting.

Nearly fifty acres of gullied land were planted to shrubs and trees to control erosion. Wildlife will benefit from all of these plantings. Some of the trees and shrubs used for controlling eroding gullies are: black locust, chokecherry, cottonwood, plum, silverberry, sumac, and willow.

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A new 8-page bulletin on soil conservation districts was published by the Extension Service in June, 1940. The title, "The How and Why of Soil Conservation Districts," aptly describes the contents. The twenty-four questions most often asked by farmers are answered in this publication. Copies are available at the county agent's office or they may be secured by writing to the State Extension Office.

A number of mats for newspaper use are being made available to county agents through the Extension Editor. These mats are pictures of soil erosion control as it has been practiced in South Dakota for the past few years. Watch your local weekly and daily papers for these pictures and the interesting stories that accompany them.

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Soil Conservation Survey Started In Emanuel-Choteau District

A detailed survey of soil types, erosion conditions, slopes, and present use of land is underway in the Emanuel-Choteau Creek Soil Conservation District, according to Leslie Johnson, technician from the Soil Conservation Office at Springfield, South Dakota. This survey, which was started in the early part of May, will be continued until all of the land within the District has been mapped.

This survey is being made of each farm, using aerial photographs as a base map. The conservation survey maps will show the location of all drainage, farm boundaries, roads, buildings, fences, field boundaries, in addition to areas having different degrees of erosion, slope, and soil types. The survey work is being done by personnel of the Soil Conservation Service who have been assigned to the District.

The purpose of the survey is to provide a land inventory of existing conditions which will be used as a basis for proper land use planning on farms within the District. Later on, when the survey has progressed sufficiently, the survey data will be used in establishing land classes, according to use capability. Surveys of this kind have been completed, or are in progress, in all other soil conservation districts in South Dakota.

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